



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,060	02/27/2002	Byron A. Alcorn	100110642-1	1432

7590 11/26/2003
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

QUILLEN, ALLEN E

ART UNIT	PAPER NUMBER
----------	--------------

2676

3

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,060

Applicant(s)

ALCORN ET AL.

Examiner

Allen E. Quillen

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-39 are rejected under 35 U.S.C. 102(a) as being anticipated by Wasserman, et al, U.S. Patent Application Publication 2003/0048276.

3. Regarding claim 1, representative of claims 7-9, 15-16, 22, 24-25, 28-29, 31-32, 35, 39, Wasserman discloses a centralized resource system (Figure 2, Page 2, Paragraphs 43-53), comprising: a plurality of [first and second] compute resource units (more than one, Paragraphs 54-57); a plurality of [first and second] visualization resource units (Figure 7, Pages 5-6, Paragraphs 84-92); a switching fabric coupling the plurality of visualization resource units to the plurality of compute resource units, the switching fabric operable to [selectively] couple select one or more visualization resource units to select one or more compute resource units for generating at least one graphical image (*crossbar switch, bus connectivity logic*, Page 3, Paragraph 49; *arbiter*, Figures 7-8, Page 6, Paragraphs 94-110); and a plurality of display devices coupled to the one or more select visualization resource units operable to display the at least one graphical image (*graphics data, polygon for output on display device*, Page 3, Paragraph 51).

Art Unit: 2676

[further claims 29, 31, 32] receiving a graphics visualization job to be executed; allocating resources in response to requirements and availability; allocating and configuring communication channels (see *arbiter* above, Page 4, Paragraph 67; Page 6, Paragraphs 90-96).

[further claim 35] a plurality of compositors; second switching fabric coupling (*display timing generators, master/slave, synchronization of data streams*, Page 15, Paragraphs 173-180).

4. Regarding claim 2, representative of claims 10, 17-21, 23, 37, Wasserman discloses a system, as set forth in claim 1, wherein the plurality of display devices is coupled to the one or more select visualization resource units via a network / Intranet / CPU's (see above, Page 2, Paragraphs 44, 47).

5. Regarding claim 3, representative of claims 11, 26, 36, Wasserman discloses a system, as set forth in claim 1, wherein the plurality of visualization resource units comprise: a graphics engine (Page 3, Paragraphs 54-57); and a plurality of compositors coupled to the graphics engine (see above, Page 15, Paragraphs 174-180).

6. Regarding claim 4, representative of claims 12, 13, Wasserman disclose a system, as set forth in claim 1, wherein the plurality of visualization resource units comprise: a plurality of graphics pipelines; a plurality of compositors; and a second switching fabric coupling the compositors to the plurality of graphics pipelines (see above; Pages 2-3, Paragraphs 44-57; *display timing generators, master/slave, synchronization of data streams*, Page 15, Paragraphs 173-180)

Art Unit: 2676

7. Regarding claim 5, Wasserman discloses a system, as set forth in claim 1, wherein the plurality of visualization resource units comprise: a plurality of graphics pipelines; a plurality of converters each coupled to a respective graphics pipeline, each converter operable to packetize data from a graphics pipeline (Figure 4, Page 7, Paragraph 103; Figure 8, loops, Page 6, Paragraphs 97-98); a plurality of compositors; and a second switching fabric coupling the plurality of compositors to the plurality of converters (see above, *display timing generators, master/slave, synchronization of data streams*, Page 15, Paragraphs 173-180).

8. Regarding claim 6, representative of claim 14, 27, 30, 33-34, 38, Wasserman discloses a system, as set forth in claim 1, further comprising an agent operable to determine a requirement for computing resource units, determine a requirement for visualization resource units, and allocate the computing resource units and visualization resource units (see *arbiter* above)..

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen E. Quillen whose telephone number is (703) 605-4584.

The examiner can normally be reached on Tuesday – Friday, 8:30am – noon and 1:00 - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella, can be reached on (703) 308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Art Unit: 2676

Washington, D.C. 20231

Or FAX'd to:

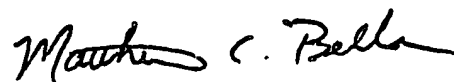
(703) 872-9314 (for Technology Center 2600 only)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Sixth Floor (Receptionist), Arlington, Virginia

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number (703) 305-9600 or (703) 305-3800.

Allen E. Quillen
Patent Examiner
Art Unit 2676

November 22, 2003



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600